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NATIONAL COMMUNICABLE DISEASE CENTER

Morbidity and Mortality

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WEEKLY REPORT

Week Ending November 25, 1967

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

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INTERNATIONAL NOTES

PLAGUE–Nouro, Nepol

On October 30, 1967, the Ministry of Health, Government of Nepal was notified of an outbreak of illness in the village of Naura, in northwestern Nepal (Figure 1). Investigations revealed that the epidemic disease was plague, with a total of 24 cases occurring from September 24, to November 5, 1967 (Figure 2). There were 17 deaths. No new cases have occurred since November 5.

Naura is a village with an estimated population of 1,500 people located on the eastern slope of an 8,000 foot mountain. The villagers live in stone and plaster homes scattered up and down the mountain side. The houses are grouped in clusters and consist of apartment-like, multi-family dwelling units.

The index case was a 24-year-old male from Naura village (Family 1, House A, Figure 3), temporarily living in Surkemala, a village about 3 miles from Naura. He was sent to Surkemala to tend cattle and lived in a stable during his stay. On September 24, ten to 12 days after his arrival, he became ill, and 2 days later, he returned to

(Continued on page 394)

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	47th WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 47 WEEKS		
	NOVEMBER 25, 1967	NOVEMBER 26, 1966	1962 - 1966	1967	1966	MEDIAN 1962 - 1966
Aseptic meningitis	45	41	41	2,770	2,730	1,964
Brucellosis	4	1	5	226	220	334
Diphtheria	10	12	8	154	184	246
Encephalitis, primary:						
Arthropod-borne & unspecified	19	30	- - -	1,459	1,978	- - -
Encephalitis, post-infectious	3	9	- - -	701	666	- - -
Hepatitis, serum	76	30	724	2,044	1,310	34,395
Hepatitis, infectious	699	694		34,786	29,090	
Malaria	30	12	2	1,889	441	97
Measles (rubeola)	292	950	2,316	60,490	196,513	371,315
Meningococcal infections, total	28	57	42	1,958	3,129	2,518
Civilian	27	46	- - -	1,835	2,826	- - -
Military	1	11	- - -	123	303	- - -
Poliomyelitis, total	2	2	2	37	92	108
Paralytic	1	2	2	27	87	87
Rubella (German measles)	273	292	- - -	42,395	44,135	- - -
Streptococcal sore throat & scarlet fever	7,390	8,478	6,790	400,377	377,983	350,235
Tetanus	5	5	5	203	176	252
Tularemia	2	1	4	156	165	261
Typhoid fever	7	1	8	378	346	411
Typhus, tick-borne (Rky. Mt. spotted fever)	3	2	1	296	245	218
Rabies in animals	54	57	57	3,856	3,669	3,669

NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	2	Rabies in man:	2
Botulism:	2	Rubella, Congenital Syndrome:	7
Leptospirosis: Cal.-1	39	Trichinosis:	54
Plague:	2	Typhus, murine: Tex.-1	41
Psittacosis:	42	Polio, Unsp.	9

PLAGUE – Naura, Nepal – *(Continued from front page)*

Figure 1
MAP OF NEPAL WITH VILLAGE AFFECTED BY PLAGUE

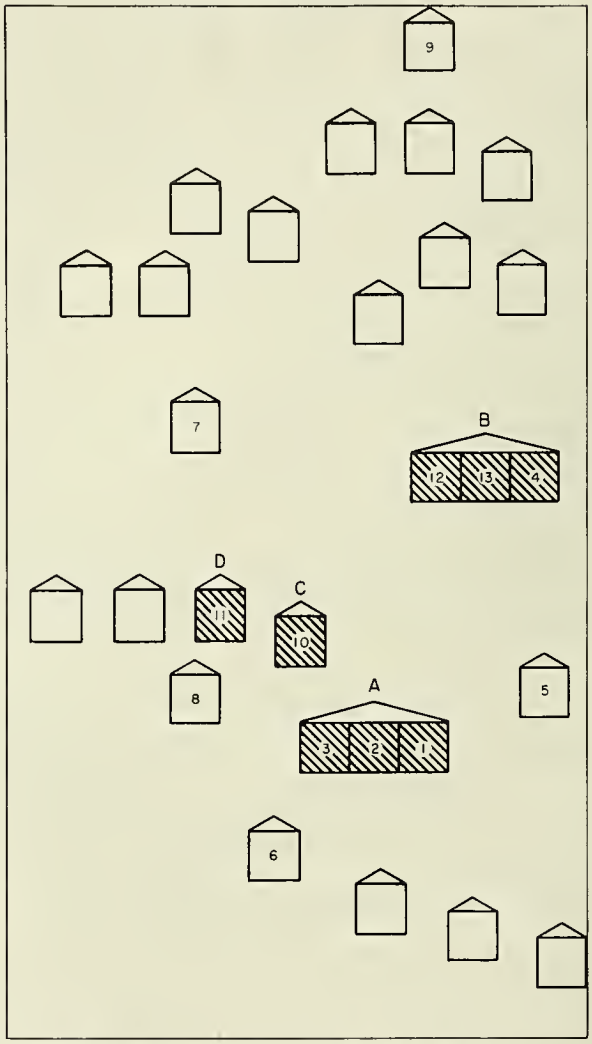
Naura. His illness was described as consisting of high fever and cough with black and bloody sputum. No "swellings" were reported. He died on September 28.

Subsequent cases were confined to a cluster of four houses and eight families (Figure 3). After the second death in house A, a strict quarantine was established by the other villagers, isolating affected families from their neighbors. However, there was free transit between houses A and B throughout the epidemic. Therefore houses A and B constituted a single epidemiologic unit. Attack rates for the illnesses in the four houses are given in Table 1.

All 17 fatal cases were characterized by abrupt onset of fever, and in 10 cases, the appearance of painful swellings in the inguinal, axillary, or cervical region. Persistent high fever was a constant finding and in 13 cases cough, productive of black and bloody sputum, was reported. Death occurred between three and eight days after the onset of fever. Two patients were also reported as having multiple "black spots" scattered over the body shortly before death. Three patients were also said to have had "open sores."

The seven non-fatal cases were characterized by the abrupt onset of fever with a skin lesion, satellite lymphadenopathy, and bubo formation. The skin lesions ranged

Figure 3
DIAGRAM OF EPIDEMIC AREA
NAURA, NEPAL – 1967



NUMBERED HOUSES HAVE HAD RECENT ILLNESS OR DEATH
LETTER REFERS TO HOUSING UNIT
NUMBER REFERS TO FAMILY UNIT
FAMILY WITH PLAGUE CASES

Figure 2
HUMAN CASES OF PLAGUE IN NAURA, NEPAL
BY DATES OF ONSET

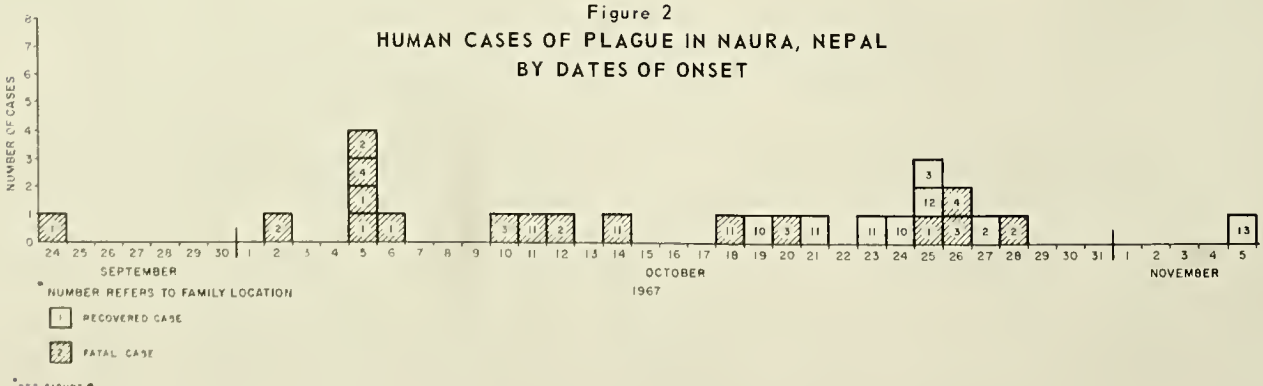


Table 1
Attack Rates and Fatality Rates – Plague
Naura, Nepal

House	Number of Families	Total Members	Cases		Deaths		C.F.R.*
			Total	%	Total	%	
A-B	6	20	18	90	15	75	83
C	1	4	2	50	0	0	0
D	1	8	4	50	2	25	50
TOTAL	8	32	24	75	17	53	71

*Case Fatality Ratio

from small pustules to large ulcerations. Pulmonary symptoms were present in only one case.

Swabs from the skin lesions of two patients yielded a gram negative bipolar staining, non-motile rod. These isolates were pathogenic for mice and have presumptively been identified as *Pasteurella pestis*.

Five other cases of illness including three deaths occurred in Naura during the epidemic period. These cases were not felt to be part of the epidemic on both clinical and epidemiologic grounds. Six other villages within an approximate radius of five miles from Naura were visited, and no illness similar to that seen in Naura was found.

Rodent deaths were seen only in Surkemala where two villagers noted three "rat" carcasses in July and August. An uncle of the index case who lived at Surkemala did see a dead "rat" in the stable where the index case was living.

In the absence of a known rodent epizootic in Naura, a vector other than the rat flea must be considered in those cases which were obviously bubonic. Houses were examined and "flagged" for fleas, but none was found. This was presumably the result of emergency spraying of all houses with carbolic acid on November 4-6.

The high attack rate among family members in houses A and B may be related to the intimacy of contact, the degree of exposure to infected fleas, and in some instances to airborne spread. The high case fatality ratio observed in houses A and B is most probably the result of focal pneumonic spread of *P. pestis* in some cases.

In retrospect, the most likely chain of events began when the index case was infected at Surkemala where a rodent die-off occurred. He then returned to Naura where he developed secondary pneumonic plague. Subsequent spread presumably resulted from airborne and flea transmission producing both pneumonic and bubonic cases. Some of the cases of bubonic plague apparently developed secondary pneumonic involvement.

Thus, the epidemic appears to have resulted from two routes of infection and to have been contained by self-imposed quarantine and carbolic acid spraying of the village houses.

(Reported by the Ministry of Health and the Public Health Laboratory, Government of Nepal, Kathmandu, Nepal; U.S. AID Mission to Nepal and a team from NCDC).

EPIDEMIOLOGIC NOTES AND REPORTS
CHIMPANZEE-ASSOCIATED HEPATITIS

A description of three cases of infectious hepatitis in persons who had had contact with chimpanzees appeared in MMWR, Vol. 16, No. 36. Recently three additional human cases of infectious hepatitis associated with imported chimpanzees and five additional cases of hepatitis in chimpanzees have been reported. Both the chimps associated with human disease and the chimps who developed hepatitis were purchased from the same animal brokerage that supplied the chimps responsible for the initial outbreak.

Only one person with infectious hepatitis (Case 1) had direct contact with a chimpanzee belonging to the original shipment of animals. The other two human cases (Cases 2 and 3) had contact with chimpanzees housed in the same brokerage.

Case No. 1: On May 9, a Boston zoo purchased a young chimpanzee from this animal brokerage. A 24-year-old female animal handler developed infectious hepatitis 52 days after beginning daily initial contact with the chimpanzee. She denied recent blood transfusion, self-administration of parenteral drugs, and known contact with jaundiced persons during 6 weeks prior to onset. Liver function tests performed on the chimpanzee 10 days after onset of the human case were normal.

Case No. 2: On April 1, 1967, two 6-month-old chimpanzees were purchased from the animal brokerage by the Children's Zoo, Des Moines, Iowa. On May 1, the veterinarian who treated one of the young chimpanzees for cough, nasal discharge, and poor appetite approximately four weeks earlier, developed an illness diagnosed as infectious hepatitis. No liver function tests were performed on the chimpanzee.

Case No. 3: On July 24, 1967, a Chicago, Illinois, family purchased a young chimpanzee from the animal brokerage. Thirty days later, on August 27, 1967, a 15-year-old female family member developed hepatitis. Liver function tests performed on both the chimpanzee and the other three family members were normal.

In addition to the 3 cases of hepatitis in humans, five cases of hepatitis developed in chimpanzees. On July 20, 1967, 10 chimpanzees were purchased from the animal brokerage by a research facility in Louisiana. Weekly serial liver function tests and liver biopsies performed on the animals revealed acute hepatitis in three animals 21, 28, and 43 days respectively after arrival. Two other animals purchased from the same brokerage on August 30,

(Continued on page 400)

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
NOVEMBER 25, 1967 AND NOVEMBER 26, 1966 (47th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			
					Primary including unsp. cases		Post-Infectious	Serum		Infectious	
	1967	1966	1967	1967	1967	1966	1967	1967	1966	1967	1966
UNITED STATES...	45	41	4	10	19	30	3	76	30	699	694
NEW ENGLAND.....	-	1	-	-	-	1	1	3	-	28	48
Maine.....	-	1	-	-	-	-	-	-	-	1	11
New Hampshire.....	-	-	-	-	-	-	-	-	-	-	1
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	-	-	-	-	-	1	1	-	-	9	15
Rhode Island.....	-	-	-	-	-	-	-	2	-	5	11
Connecticut.....	-	-	-	-	-	-	-	1	-	13	10
MIDDLE ATLANTIC.....	4	15	-	-	-	5	-	37	12	155	101
New York City.....	-	1	-	-	-	1	-	8	9	40	17
New York, Up-State.	-	7	-	-	-	1	-	11	1	31	30
New Jersey.....	3	7	-	-	-	3	-	15	1	65	33
Pennsylvania.....	1	-	-	-	-	-	-	3	1	19	21
EAST NORTH CENTRAL...	11	3	-	-	11	3	1	2	1	138	103
Ohio.....	-	1	-	-	7	1	-	-	-	46	18
Indiana.....	-	-	-	-	2	1	-	-	-	27	11
Illinois.....	2	-	-	-	1	1	1	2	-	18	9
Michigan.....	4	1	-	-	1	-	-	-	1	36	55
Wisconsin.....	5	1	-	-	-	-	-	-	-	11	10
WEST NORTH CENTRAL...	1	2	3	-	-	9	-	-	-	23	29
Minnesota.....	1	2	-	-	-	2	-	-	-	7	1
Iowa.....	-	-	1	-	-	1	-	-	-	7	10
Missouri.....	-	-	1	-	-	-	-	-	-	2	16
North Dakota.....	-	-	1	-	-	-	-	-	-	-	-
South Dakota.....	-	-	-	-	-	-	-	-	-	-	-
Nebraska.....	-	-	-	-	-	-	-	-	-	1	-
Kansas.....	-	-	-	-	-	6	-	-	-	6	2
SOUTH ATLANTIC.....	6	4	-	1	2	3	-	1	2	48	144
Delaware.....	1	1	-	-	-	-	-	-	-	1	1
Maryland.....	4	-	-	-	1	2	-	-	1	15	16
Dist. of Columbia..	-	-	-	-	-	-	-	-	-	-	3
Virginia.....	-	-	-	-	-	1	-	1	-	14	9
West Virginia.....	-	-	-	-	-	-	-	-	-	7	4
North Carolina.....	1	-	-	-	-	-	-	-	1	1	6
South Carolina.....	-	-	-	-	1	-	-	-	-	-	-
Georgia.....	-	-	-	-	-	-	-	-	-	2	101
Florida.....	-	3	-	1	-	-	-	-	-	8	4
EAST SOUTH CENTRAL...	3	3	-	6	1	-	-	3	1	50	33
Kentucky.....	-	-	-	-	-	-	-	-	-	16	10
Tennessee.....	-	2	-	5	1	-	-	3	1	17	11
Alabama.....	1	1	-	1	-	-	-	-	-	3	5
Mississippi.....	2	-	-	-	-	-	-	-	-	14	7
WEST SOUTH CENTRAL...	2	-	1	3	-	1	-	2	2	64	25
Arkansas.....	-	-	-	-	-	-	-	-	-	4	2
Louisiana.....	-	-	-	1	-	1	-	2	2	19	4
Oklahoma.....	-	-	-	-	-	-	-	-	-	3	3
Texas.....	2	-	1	2	-	-	-	-	-	38	16
MOUNTAIN.....	1	-	-	-	-	-	-	1	-	35	50
Montana.....	-	-	-	-	-	-	-	-	-	8	3
Idaho.....	-	-	-	-	-	-	-	-	-	3	10
Wyoming.....	-	-	-	-	-	-	-	-	-	-	2
Colorado.....	-	-	-	-	-	-	-	-	-	7	5
New Mexico.....	1	-	-	-	-	-	-	-	-	5	20
Arizona.....	-	-	-	-	-	-	-	1	-	9	7
Utah.....	-	-	-	-	-	-	-	-	-	2	3
Nevada.....	-	-	-	-	-	-	-	-	-	1	-
PACIFIC.....	17	13	-	-	5	8	1	27	12	158	161
Washington.....	2	-	-	-	-	-	-	-	-	32	8
Oregon.....	-	-	-	-	-	2	-	6	-	9	37
California.....	15	13	-	-	5	6	1	21	12	112	114
Alaska.....	-	-	-	-	-	-	-	-	-	4	-
Hawaii.....	-	-	-	-	-	-	-	-	-	1	2
Puerto Rico	-	-	-	-	-	-	-	-	-	25	23

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

NOVEMBER 25, 1967 AND NOVEMBER 26, 1966 (47th WEEK) - CONTINUED

AREA	MALARIA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			POLIOMYELITIS			RUBELLA
			Cumulative			Cumulative		Total	Paralytic		
	1967	1967	1967	1966	1967	1967	1966	1967	1967	Cum. 1967	1967
UNITED STATES...	30	292	60,490	196,513	28	1,958	3,129	2	1	27	273
NEW ENGLAND.....	1	6	923	2,491	2	78	144	-	-	-	26
Maine.....	-	1	262	274	-	3	12	-	-	-	4
New Hampshire.....	-	-	77	80	-	3	9	-	-	-	-
Vermont.....	-	-	42	317	-	1	4	-	-	-	-
Massachusetts.....	-	4	384	821	-	36	61	-	-	-	6
Rhode Island.....	-	-	62	73	-	4	17	-	-	-	-
Connecticut.....	1	1	96	926	2	31	41	-	-	-	16
MIDDLE ATLANTIC.....	7	26	2,449	18,348	3	322	404	-	-	5	18
New York City.....	-	6	497	8,354	-	56	64	-	-	1	8
New York, Up-State.	-	9	622	2,603	2	81	107	-	-	1	7
New Jersey.....	3	10	564	1,934	-	105	118	-	-	-	2
Pennsylvania.....	4	1	766	5,457	1	80	115	-	-	3	1
EAST NORTH CENTRAL...	4	86	5,965	69,852	7	274	494	-	-	6	69
Ohio.....	-	3	1,175	6,415	2	92	143	-	-	-	3
Indiana.....	-	11	637	5,782	-	31	85	-	-	3	10
Illinois.....	3	47	1,138	11,473	-	61	89	-	-	-	7
Michigan.....	1	15	1,001	14,945	3	69	127	-	-	3	15
Wisconsin.....	-	10	2,014	31,237	2	21	50	-	-	-	34
WEST NORTH CENTRAL...	-	21	2,940	9,039	-	93	161	-	-	3	17
Minnesota.....	-	9	133	1,669	-	21	35	-	-	-	2
Iowa.....	-	3	774	5,363	-	19	22	-	-	1	14
Missouri.....	-	1	340	537	-	18	63	-	-	-	-
North Dakota.....	-	7	885	1,274	-	3	11	-	-	-	-
South Dakota.....	-	-	58	40	-	7	5	-	-	-	-
Nebraska.....	-	1	656	156	-	15	9	-	-	-	1
Kansas.....	-	-	94	NN	-	10	16	-	-	2	-
SOUTH ATLANTIC.....	7	34	7,194	15,812	6	376	531	-	-	2	19
Delaware.....	-	-	50	262	-	7	5	-	-	-	1
Maryland.....	2	2	174	2,121	-	53	49	-	-	1	2
Dist. of Columbia..	-	-	24	388	1	15	14	-	-	-	-
Virginia.....	-	14	2,253	2,238	-	43	67	-	-	-	-
West Virginia.....	-	1	1,457	5,481	1	36	37	-	-	-	10
North Carolina.....	-	9	926	601	2	75	133	-	-	1	-
South Carolina.....	3	-	512	661	1	31	54	-	-	-	1
Ceorgia.....	-	2	41	240	1	57	77	-	-	-	-
Florida.....	2	6	1,757	3,820	-	59	95	-	-	-	5
EAST SOUTH CENTRAL...	2	16	5,448	20,168	2	155	269	-	-	2	20
Kentucky.....	1	7	1,426	4,777	-	45	95	-	-	-	-
Tennessee.....	-	3	1,994	12,540	2	67	92	-	-	-	19
Alabama.....	-	6	1,354	1,752	-	29	58	-	-	-	1
Mississippi.....	1	-	674	1,099	-	14	24	-	-	2	-
WEST SOUTH CENTRAL...	3	57	17,964	25,748	3	246	418	2	1	9	-
Arkansas.....	-	-	1,404	982	1	37	36	-	-	1	-
Louisiana.....	-	-	156	99	2	97	159	1	-	-	-
Oklahoma.....	3	-	3,359	538	-	18	21	-	-	1	-
Texas.....	-	57	13,045	24,129	-	94	202	1	1	7	-
MOUNTAIN.....	2	9	4,831	12,388	1	40	94	-	-	-	8
Montana.....	-	2	328	1,890	-	5	5	-	-	-	-
Idaho.....	-	-	395	1,671	-	3	5	-	-	-	-
Wyoming.....	-	2	195	219	-	1	6	-	-	-	-
Colorado.....	-	1	1,610	1,392	-	13	49	-	-	-	5
New Mexico.....	-	-	604	1,159	-	5	10	-	-	-	-
Arizona.....	2	4	1,047	5,345	1	6	13	-	-	-	3
Utah.....	-	-	383	657	-	4	1	-	-	-	-
Nevada.....	-	-	269	55	-	3	5	-	-	-	-
PACIFIC.....	4	37	12,776	22,667	4	374	614	-	-	-	96
Washington.....	-	17	5,607	4,662	1	37	48	-	-	-	29
Oregon.....	2	4	1,689	2,213	-	30	40	-	-	-	6
California.....	2	16	5,158	15,028	3	292	504	-	-	-	31
Alaska.....	-	-	140	606	-	11	18	-	-	-	30
Hawaii.....	-	-	182	158	-	4	4	-	-	-	-
Puerto Rico.....	1	5	2,231	3,285	1	15	17	-	-	-	-

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
NOVEMBER 25, 1967 AND NOVEMBER 26, 1966 (47th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967
UNITED STATES...	7,390	5	203	2	156	7	378	3	296	54	3,856
NEW ENGLAND.....	1,120	-	2	-	1	-	10	-	1	1	98
Maine.....	10	-	-	-	-	-	-	-	-	1	24
New Hampshire.....	4	-	-	-	-	-	-	-	-	-	46
Vermont.....	27	-	-	-	-	-	-	-	-	-	22
Massachusetts.....	155	-	1	-	1	-	6	-	1	-	4
Rhode Island.....	80	-	-	-	-	-	1	-	-	-	2
Connecticut.....	844	-	1	-	-	-	3	-	-	-	-
MIDDLE ATLANTIC.....	179	-	13	-	1	1	38	-	35	-	93
New York City.....	4	-	7	-	-	1	19	-	-	-	-
New York, Up-State.	153	-	1	-	1	-	11	-	9	-	77
New Jersey.....	NN	-	1	-	-	-	4	-	15	-	-
Pennsylvania.....	22	-	4	-	-	-	4	-	11	-	16
EAST NORTH CENTRAL...	766	3	26	-	14	-	40	-	22	3	366
Ohio.....	111	-	4	-	-	-	13	-	11	1	131
Indiana.....	167	-	3	-	2	-	11	-	1	-	81
Illinois.....	103	2	13	-	12	-	6	-	10	-	68
Michigan.....	297	1	5	-	-	-	8	-	-	-	23
Wisconsin.....	88	-	1	-	-	-	2	-	-	2	63
WEST NORTH CENTRAL...	430	-	17	-	22	-	21	-	4	21	907
Minnesota.....	19	-	5	-	-	-	2	-	1	6	180
Iowa.....	136	-	2	-	1	-	3	-	-	4	123
Missouri.....	4	-	8	-	9	-	10	-	1	5	165
North Dakota.....	122	-	-	-	-	-	-	-	-	2	155
South Dakota.....	46	-	1	-	2	-	-	-	-	-	116
Nebraska.....	77	-	-	-	-	-	4	-	2	3	63
Kansas.....	26	-	1	-	10	-	2	-	-	1	105
SOUTH ATLANTIC.....	774	1	42	-	10	3	61	3	119	6	463
Delaware.....	7	-	-	-	-	-	-	-	-	-	-
Maryland.....	131	-	-	-	-	-	2	-	21	-	4
Dist. of Columbia..	30	-	-	-	-	-	3	-	-	-	6
Virginia.....	214	-	10	-	-	1	7	-	28	3	196
West Virginia.....	165	-	1	-	2	-	2	-	1	-	62
North Carolina.....	32	-	7	-	-	-	4	1	47	-	3
South Carolina.....	50	-	1	-	2	-	10	-	5	-	2
Georgia.....	15	-	4	-	5	2	21	2	17	1	114
Florida.....	130	1	19	-	1	-	12	-	-	2	76
EAST SOUTH CENTRAL...	871	-	31	2	12	-	64	-	53	12	731
Kentucky.....	14	-	4	1	2	-	24	-	15	3	164
Tennessee.....	728	-	8	-	7	-	11	-	26	8	510
Alabama.....	74	-	11	1	1	-	12	-	12	1	47
Mississippi.....	55	-	8	-	2	-	17	-	-	-	10
WEST SOUTH CENTRAL...	556	-	48	-	80	1	39	-	42	10	864
Arkansas.....	2	-	5	-	47	-	12	-	14	-	108
Louisiana.....	2	-	4	-	8	-	15	-	2	-	67
Oklahoma.....	18	-	3	-	18	-	7	-	16	8	337
Texas.....	534	-	36	-	7	1	5	-	10	2	352
MOUNTAIN.....	1,373	-	2	-	10	-	20	-	9	-	111
Montana.....	43	-	-	-	1	-	2	-	-	-	-
Idaho.....	68	-	-	-	-	-	-	-	-	-	-
Wyoming.....	159	-	-	-	2	-	1	-	-	-	5
Colorado.....	851	-	1	-	1	-	12	-	9	-	10
New Mexico.....	92	-	1	-	-	-	2	-	-	-	34
Arizona.....	77	-	-	-	-	-	3	-	-	-	50
Utah.....	83	-	-	-	6	-	-	-	-	-	3
Nevada.....	-	-	-	-	-	-	-	-	-	-	9
PACIFIC.....	1,321	1	22	-	6	2	85	-	11	1	223
Washington.....	337	-	-	-	2	-	2	-	2	-	2
Oregon.....	145	-	1	-	1	-	3	-	3	-	4
California.....	608	1	17	-	3	2	77	-	6	1	217
Alaska.....	187	-	-	-	-	-	-	-	-	-	-
Hawaii.....	44	-	4	-	-	-	3	-	-	-	-
Puerto Rico.....	6	1	18	-	-	1	8	-	-	1	31

Week No. 47

DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED NOVEMBER 25, 1967

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over		
NEW ENGLAND:	751	469	30	38
Boston, Mass.	267	165	8	13
Bridgeport, Conn.	43	24	4	1
Cambridge, Mass.	27	15	6	1
Fall River, Mass.	27	18	-	2
Hartford, Conn.	55	34	2	6
Lowell, Mass.	14	9	-	2
Lynn, Mass.	29	24	-	-
New Bedford, Mass.	28	18	-	3
New Haven, Conn.	60	35	2	4
Providence, R. I.	61	34	3	1
Somerville, Mass.	14	10	1	-
Springfield, Mass.	49	29	1	1
Waterbury, Conn.	22	14	-	-
Worcester, Mass.	55	40	3	4
MIDDLE ATLANTIC:	3,269	1,994	124	144
Albany, N. Y.	42	21	2	2
Allentown, Pa.	42	28	1	2
Buffalo, N. Y.	142	84	-	2
Camden, N. J.	42	27	2	2
Elizabeth, N. J.	16	11	-	1
Erie, Pa.	32	17	3	2
Jersey City, N. J.	73	51	3	-
Newark, N. J.	67	40	2	3
New York City, N. Y.	1,734	1,069	63	71
Paterson, N. J.	28	18	1	2
Philadelphia, Pa.	554	319	11	42
Pittsburgh, Pa.	138	75	4	2
Reading, Pa.	44	29	2	-
Rochester, N. Y.	118	76	16	5
Schenectady, N. Y.	15	10	2	-
Scranton, Pa.	28	14	2	1
Syracuse, N. Y.	61	42	2	2
Trenton, N. J.	30	19	-	1
Utica, N. Y.	32	22	5	3
Yonkers, N. Y.	31	22	3	1
EAST NORTH CENTRAL:	2,379	1,342	61	119
Akron, Ohio	55	35	-	4
Canton, Ohio	30	19	3	2
Chicago, Ill.	751	406	25	39
Cincinnati, Ohio	124	77	3	5
Cleveland, Ohio	187	104	-	2
Columbus, Ohio	119	74	4	10
Dayton, Ohio	75	36	3	3
Detroit, Mich.	369	182	6	21
Evansville, Ind.	46	30	1	2
Flint, Mich.	40	28	1	2
Fort Wayne, Ind.	34	22	1	1
Gary, Ind.	13	7	-	1
Grand Rapids, Mich.	41	26	2	2
Indianapolis, Ind.	138	76	2	11
Madison, Wis.	27	13	-	1
Milwaukee, Wis.	75	51	1	3
Peoria, Ill.	36	22	-	2
Rockford, Ill.	40	25	3	3
South Bend, Ind.	33	23	5	-
Toledo, Ohio	86	57	-	2
Youngstown, Ohio	60	29	1	3
WEST NORTH CENTRAL:	724	447	26	34
Des Moines, Iowa	45	29	1	1
Duluth, Minn.	19	10	-	1
Kansas City, Kans.	37	26	4	2
Kansas City, Mo.	126	84	2	4
Lincoln, Nebr.	35	23	3	3
Minneapolis, Minn.	92	52	3	5
Omaha, Nebr.	68	44	1	4
St. Louis, Mo.	210	116	8	10
St. Paul, Minn.	60	41	-	3
Wichita, Kans.	32	22	4	1
SOUTH ATLANTIC:	1,080	582	46	48
Atlanta, Ga.	127	61	3	8
Baltimore, Md.	209	117	9	4
Charlotte, N. C.	36	14	-	2
Jacksonville, Fla.	54	37	1	1
Miami, Fla.	87	60	4	2
Norfolk, Va.	40	16	4	4
Richmond, Va.	89	36	2	10
Savannah, Ga.	29	15	3	2
St. Petersburg, Fla.	52	42	6	1
Tampa, Fla.	86	42	5	8
Washington, D. C.	226	115	9	5
Wilmington, Del.	45	27	-	1
EAST SOUTH CENTRAL:	610	328	23	20
Birmingham, Ala.	82	44	1	3
Chattanooga, Tenn.	43	23	2	1
Knoxville, Tenn.	53	38	-	1
Louisville, Ky.	140	76	12	4
Memphis, Tenn.	122	64	3	6
Mobile, Ala.	53	29	1	2
Montgomery, Ala.	28	13	3	-
Nashville, Tenn.	89	41	1	3
WEST SOUTH CENTRAL:	923	474	49	49
Austin, Tex.	34	22	4	4
Baton Rouge, La.	14	6	1	-
Corpus Christi, Tex.	23	7	1	6
Dallas, Tex.	160	83	5	14
El Paso, Tex.	33	23	3	-
Fort Worth, Tex.	68	39	3	1
Houston, Tex.	152	67	6	8
Little Rock, Ark.	38	21	3	2
New Orleans, La.	161	76	5	5
Oklahoma City, Okla.	67	36	2	2
San Antonio, Tex.	75	43	1	5
Shreveport, La.	49	23	8	-
Tulsa, Okla.	49	28	7	2
MOUNTAIN:	362	215	20	25
Albuquerque, N. Mex.	29	12	2	-
Colorado Springs, Colo.	19	15	1	-
Denver, Colo.	95	51	8	9
Ogden, Utah	19	14	1	1
Phoenix, Ariz.	84	44	2	10
Pueblo, Colo.	15	10	2	-
Salt Lake City, Utah	41	28	2	5
Tucson, Ariz.	60	41	2	-
PACIFIC:	1,348	799	37	51
Berkeley, Calif.	15	8	-	1
Fresno, Calif.	35	17	4	-
Glendale, Calif.	24	18	-	1
Honolulu, Hawaii	44	17	2	7
Long Beach, Calif.	71	51	2	1
Los Angeles, Calif.	401	230	10	14
Oakland, Calif.	75	48	3	1
Pasadena, Calif.	32	26	2	1
Portland, Oreg.	97	65	-	-
Sacramento, Calif.	56	31	-	3
San Diego, Calif.	105	57	4	6
San Francisco, Calif.	150	84	2	-
San Jose, Calif.	39	23	2	3
Seattle, Wash.	114	67	4	9
Spokane, Wash.	45	30	1	2
Tacoma, Wash.	45	27	1	2
Total	11,446	6,650	416	528

Cumulative Totals
including reported corrections for previous weeks

All Causes, All Ages	576,384
All Causes, Age 65 and over	328,904
Pneumonia and Influenza, All Ages	20,142
All Causes, Under 1 Year of Age	29,235

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CHIMPANZEE-ASSOCIATED HEPATITIS

(Continued from page 395)

1967, developed liver enzyme abnormalities and biopsy changes of acute hepatitis four weeks after arrival. None of these animals was jaundiced.

(Reported by S. L. Hendricks, D.V.M., Director, Veterinary Public Health, Iowa State Department of Health; N. J. Fiumara, M.D., M.P.H., Director, Division of Communicable Diseases, Massachusetts Department of Public Health; Norman J. Rose., M.D., M.P.H., Chief, Bureau of Epidemiology, Illinois Department of Public Health; Dr. A. William Holmes, Director of Section of Hepatology, Department of Medicine, Presbyterian-St. Luke's Hospital, Chicago, Illinois; The Delta Primate Research Center, Covington, Louisiana; and an EIS Officer.)

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MORBIDITY AND MORTALITY WEEKLY REPORT

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

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